REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

I. Status of the Application

Claims 1, 3, 5-9 and 12-14 remain in this application. Claims 2, 4, 10 and 11 have been previously canceled. With this Amendment, Applicant amends claims 1, 3, 5, 6, 8, and 12. No new matter is added. Support for the amendments may be found, for example, in Applicant's specification at page 6, line 1 through page 7, line 6.

II. Claim Rejections

Claims 1, 3, 5 - 9 and 12 - 14 have been rejected under 35 USC §103(a) as being unpatentable over Alperovich et al. (U.S. Patent No. 6,101,393) in view of Allison et al. (U.S. Patent PublicationNo. 2003/0083078) . Applicant amends independent claims 1 and 12 to further clarify the nature of his invention, amends dependent claims 3, 5, 6, 8 to conform to the amendments to independent claim 1, and respectfully traverses the rejection

In amended independent claim 1, for example, Applicant claims:

> **1.** A method for preventing delivery of selected SMS messages, comprising the steps of:
>
> receiving a packet data unit (PDU) including an SMS message destined for an end user;
>
> determining whether the received PDU is a "submit_sm" PDU;
>
> searching a "submit sm" PDU for one or more telephone numbers present in either the text of a "short_message" parameter or a "callback_num" parameter associated with the "submit_sm" PDU;
>
> comparing the one or more telephone numbers to a plurality of predetermined telephone numbers, and

selectively preventing delivery of the SMS message to the end user if any of the one or more telephone numbers associated with the "submit_sm" PDU message matches any of the plurality of predefined telephone numbers in the list.

As described in Applicant's Response of December 13, 2004, Alperovich discloses a system in which a cellular subscriber can selectively enable or disable the acceptance of short messages by specifying certain telephone numbers from which the receipt of short messages will be allowed (acceptance list 220 in Fig. 4) and other telephone numbers from which the receipt of short messages will be rejected (rejection list 230 in Fig. 4). A screening application (240) resident in the HLR (26) determines the identity of a sender of a short message by preferably examining the MSISDN (505) (the MSISDN is a 10 digit code associated with each mobile phone, which code represents the home area code and phone number of the phone), comparing the MSISDN with the user specified phone numbers, and either allowing the short message to be sent or deleted based on which user list (reject or accept) the sender phone number appears (see Fig. 5). Although Alperovich admittedly discloses that identifiers other than the MSISDN may be used (such as an IMSI number associated with a single originating entity, or a group or type identifier), Alperovich makes clear that the identifier must in any case be a datum that accompanies the transmitted SMS message, and that uniquely and explicitly identifies the originator of the SMS message (see, e.g., Col. 3, lines 30-35 and Col. 6, lines 7 - 21 of Alperovich).

As described at page 2, lined 5 - 10 of Applicant's specification, prior art systems which block SMS messages based on the identification of the sender/originator, such as the system disclosed by Alperovich, are of little use in protecting against spammers who use email accounts to send the SMS messages via the Internet, and who frequently change their e-mail accounts to avoid such blocking. With this approach, it is virtually impossible to know from the MSISDN or any other explicit source/orginator identifier whether a particular SMS message has originated from a spammer.

The present invention as disclosed in amended independent claim 1 claims a method for preventing delivery of unsolicited SMS messages. As compared to prior art spam prevention systems, a major improvement claimed for the present invention is based on the discovery that SMS

spammers, particularly those selling products or services, typically include an additional telephone number within the actual text of the SMS message as captured in a short_message parameter, or alternatively provide an explicit call-back telephone number as captured in a callback_num parameter when sending the SMS message (see, e.g., page 2, lines 11 - 17 of Applicant's sepcification).

This additional or call-back telephone number is generally not identified as the originator's principal telephone number, but rather as a "special" telephone number that a recipient can call to obtain additional information about a particular product or service offering. Unlike the e-mail address used to identify the originator, it becomes impractical for a spammer to frequently change these special telephone numbers. As compared to changing e-mail accounts, changing telephone numbers is more costly and incurs a greater latency period. In addition, changing telephone numbers in this case is counter-productive, as potential buyers who receive an earlier e-mail message with a previous and now canceled telephone number will be unable to use the canceled number for access to purchasing a product or service.

Thus, the present invention attempts to determine if an SMS message is being sent by an unsolicited spammer not by looking at the source identifier of the message (e.g., the "source_addr" parameter associated with the SMS message), but rather by looking at the text of the short message or at call-back number field tofind one or more telephone numbers in a pre-set list of telephone numbers known to have been used by spammers to enable call-backs. As acknowledged by the Examiner, Alperovich does not disclose a system in which a telephone number associated with an SMS message is determined by searching in other than a source or originator identifying field, and specifically not in either of a short_message parameter or a callback_num parameter of a "short_message" PDU of the SMS message. The Examiner, however suggests that Allison in a similar field of endeavor teaches the missing limitations.

Allison discloses a system and method directed to preventing delivery of unwanted SMS messages (see, e.g., abstract of Allison). A signaling message and processing node is disclosed that determines whether an unwanted spam message has been sent to a receiving party, and if so,

discards the unwanted message. This determination is made with reference to one or more message discrimination data tables containing a number of index fields relating to called party identification, calling party identification, and other communications network identifiers that indicate meassage source, message destination and other message routing information (see, e.g., page 5, paragraphs [0048], [0049] and [0052]).

Like Alperovich, for example, Allison suggests that source/origination parameters such as MSISDN can be extracted from the SMS message and compared to the sending party identifier field in order to determine a discrimination action (see, e.g., page 5, paragraph [0050]). In sharp contrast to Applicant's claimed invention, however, Allison fails to disclose or suggest that special telephone numbers provided to facilitate the message recipient's response (for example, including reply telephone numbers inserted by the sender in the text of the short_message parameter or in the callback_num parameter) be searched to identify spammers. Moreover, neither Alperovich nor Allison discloses or otherwise suggests searching in a non-source identifier field (such as the short_message parameter) to find telephone numbers for comparison against a spammer list. Accordingly, Applicant respectfully submits that amended independent claim 1 is not made obvious by either of the cited references either alone or in combination, and stands in condition for allowance.

As independent claim 12 has been amended in substantially the same manner as claim 1, Applicant substantially reapplies the above arguments to amended independent claim 12 to submit that claim 12 is also patentable over the combination of Alperovich and Allison. As dependent claims 3, 5 - 9, 13 and 14 each depend from one of amended independent claims 1 and 12, Applicant further submits that dependent claims 3, 5 - 9, 13 and 14 are allowable for at least this reason

CONCLUSION

Therefore, in view of the above amendments and remarks, it is respectfully requested that a Notice of Allowance as to all pending claims be issued in this case.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

By _____

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